

10  
B & Dwggs.  
Cofa  
8-18-03

I Claim:

1. An adaptor device for firing a gun of a predetermined calibre loaded with a missile of a reduced calibre suitable for target practice, said gun including a rifled barrel with a large-calibre interior diameter, a firing chamber of a similar diameter and axially aligned with said barrel and designed to hold a standard-calibre ammunition round and firing means including a firing pin for impinging into the rear part of said chamber for firing the gun, wherein the adaptor device includes an elongated tubular casing having an external shape generally approximating or replicating said standard calibre ammunition round, said casing having:
- a rear end and a nose end, the latter for pointing towards the barrel muzzle of the gun,
- a seat for said primer provided at said casing rear end, a base removably attached to said casing rear end to retain a [said] primer in said seat, said base partly covering said primer from the rear and provided with an orifice for exposing said primer to said firing pin passing through said orifice,
- a longitudinal bore of a diameter which is substantially that of said reduced calibre, said bore extending from said casing nose end towards a position inside said casing intermediate said rear and nose ends, an inward rim forming a missile seat at the rearward end of said bore, and
- a narrow passageway for passing expansion gases generated by said primer detonating to said missile to propel said missile out of said bore and the firearm barrel.
2. The adaptor device of claim 1, wherein said base is screwable onto said casing rear end after a primer has been placed in said primer seat and unscrewable off said casing rear end to discard remains of a spent primer.

81  
Cont.

- 1  
B  
Cont.
3. The adaptor device of claim 1, wherein said primer seat comprises a cavity including a rear conical portion having a diameter decreasing towards said orifice, said cavity further including a forward cylindrical portion longitudinally adjacent said cavity conical portion, and wherein said missile seat rim is formed by a removable primer retainer cylindrical member longitudinally traversed by said narrow passageway coaxially aligned with said bore.
- 5
4. The adaptor device of claim 3, wherein said position at one end of said bore comprises a circumferential step between said bore and said rear end cavity forming a seat for said primer retainer member.
- 10
5. The adaptor device of claim 1, wherein the length and the external diameter of said casing including said base are substantially those of the large-calibre munition of said firearm.
- 15
6. The adaptor device of claim 1, wherein the length of said casing including said base is sufficiently short to prevent accidental use of the large-calibre munition in said firearm.
- 20
7. The adaptor device of claim 1, wherein said base includes a circumferential flange.
- 25
8. The adaptor device of claim 1, further including a barrel liner having a length which is substantially that of said barrel and a longitudinal bore of a diameter which is substantially that of said reduced calibre, said barrel liner providing guiding means for a pellet upon firing thereof to assist in maintaining missile direction upon the missile leaving the gun muzzle, whereby shot precision is enhanced.
- 30

9. The adaptor device of claim 8, wherein said liner is adapted to be pushed into the gun barrel through the muzzle end thereof until it abuts against said nose end of said casing loaded in the chamber.
- 5 10. The adaptor device of claim 9, wherein said liner has:  
an external thread partly protruding out of the gun barrel mouth at said muzzle end,  
a sleeve made from a deformable plastics material and which covers a part of the liner tube after the  
10 thread and  
a nut for screwing onto the thread to tighten against said sleeve until said sleeve expands diametrically to press against the internal wall of the barrel, thereby immobilizing the liner tube.
- 15 11. The adaptor device of claim 9, wherein said liner has at least one O-ring housed in a respective circumpherencial groove adjacent to the rear end of the liner to keep it centred inside the barrel and maintain a gap along the length between the tube and the barrel.
- 20 12. The adaptor device of claim 1, wherein said casing houses a longitudinally displaceable cannon containing said longitudinal bore for loading said reduced calibre munition and elastic means for resiliently urging the displaceable cannon towards said casing rear end, the  
25 nose end of said casing including an orifice to enable said cannon to emerge therethrough under the effect of expansion gasses produced by a detonating primer struck by said firing pin.
- 30 13. The adaptor device of claim 12, wherein said elastic means is a spring wound around the displaceable cannon.

8/1  
Cont.

- 5 14. The adaptor device of claim 8, for revolver-type fire-  
arms, wherein said casing includes a longitudinally dis-  
placeable cannon and said liner has a rear end of a  
relatively soft plastics material for initially absorbing  
strikes from a displaceable cannon in said casing until  
said material becomes sufficiently gorged to abut said  
cannon in a maximum displaced position.
- 10 15. The adaptor device of claim 1, for revolver-type fire-  
arms, wherein said base is adapted to be screwed into or  
onto said casing to a variable degree to enable the  
length of said adaptor device to be adjusted to the  
length of the cylinder of the revolver.
- 15 16. The adaptor device of claim 15, wherein said casing  
further includes a forward tubular member containing said  
casing nose end, an intermediate member adjustably screw-  
coupled between said forward member and said base for ad-  
justing the length of said adaptor device to said length  
of said revolver cylinder, and a counternut for main-  
taining said adaptor device length.
- 20 17. The adaptor device of claim 1, for revolver-type fire-  
arms, wherein said casing nose end is adapted to be cut  
down to adjust the length of said adaptor device to the  
length of the cylinder of the revolver.
- 25 18. The adaptor device of claim 1, wherein rifling grooves  
extend substantially the length of said longitudinal bore  
of said casing.
19. The adaptor device of claim 8, wherein rifling grooves  
extend substantially the length of said longitudinal bore  
of said barrel liner.
- 30 20. The adaptor device of claim 10, wherein said nut includes  
a tubular portion for pressing against said sleeve during  
tightening of said nut.

B1  
Conced.

21. An adaptor device for firing a gun of a predetermined calibre loaded with a missile of a reduced calibre, said gun including a barrel with a large-calibre interior diameter, a firing chamber of a similar diameter and axially aligned with said barrel and designed to hold a standard-calibre ammunition round and firing means including a firing pin for impinging into the rear part of said chamber for firing the gun, wherein the adaptor device includes an elongated tubular casing having an external shape generally approximating or replicating said standard calibre ammunition round, said casing having:
- a rear end and a nose end, the latter for pointing towards the barrel muzzle of the gun,
  - a seat for said primer provided at said casing rear end, said primer seat comprising a cavity including a rear conical portion having a diameter decreasing towards said orifice, said cavity further including a forward cylindrical portion longitudinally adjacent said cavity conical portion,
  - a base removibly attached to said casing rear end to retain a primer in said seat, said base provided with an orifice for passage of said firing pin there-through,
  - a longitudinal bore of a diameter which is substantially that of said reduced calibre, said bore extending from said casing nose end towards a position inside said casing intermediate said rear and nose ends, said position comprising a circumferential step between said bore and said rear end cavity forming a seat for said primer retainer member,
  - a narrow passageway for passing expansion gases generated by said primer detonating to said missile to propel said missile out of said bore and the firearm barrel, and

B2  
Cont

an inward rim forming a missile seat at the rearward end of said bore, said rim formed by a removable primer retainer cylindrical member longitudinally traversed by said narrow passageway coaxially aligned with said bore.

B<sup>2</sup>  
Conrad.